

### REMARKS

This is in response to the Office Action dated August 24, 2004.

Claims 1, 16, 17, 19, 28, 31, and 32 are amended. Claims 7-14, 21-27 and 33-36 are withdrawn, as a result claims 1-36 are now pending.

#### *§102 Rejection of the Claims Using Guidant Product Brochure*

Claims 1, 15-20, 31 and 32 were rejected under 35 USC § 102(b) as being anticipated by the Guidant Product Brochure, "Pacemaker System ...Pacemakers" (hereinafter referred to as "the Brochure").

#### *Claim 1*

Claim 1 is amended to better describe the recited subject matter. Insofar as the rejection is applied to claim 1, Applicant respectfully traverses the rejection and submits that the Brochure does not provide the recited subject matter. For example, Applicant is unable to find in the cited portions of the Brochure, among other things, a rate smoothing module configured to select a rate smoothing algorithm based on whether a predetermined state is present, as recited in claim 1.

The Office Action states:

The brochure describes the rate smoothing ... being used /selected/adjusted during a particular state, such as between the hysteresis rate and LRL, between the maximum pacing rate and LRL (page 6-47), between LRL and MSR (page 6-45 and 6-46), and using rate windows (pages 6-46 and 6-47).

In contrast, claim 1 recites

a predetermined state detector ... adapted to detect a predetermined state from the at least one of the cardiac signal and the physiologic parameter, the predetermined state including at least one of a heart rate state, a cardiac rhythm state, a patient activity state, a respiration state, and a metabolic need state[.]

Thus, while the predetermined state as recited in claim 1 relates to a cardiac signal or physiologic parameter, the Office Action asserts examples of "a particular state" related to operational parameters of a pacemaker.

Applicant respectfully requests reconsideration and allowance of claim 1.

*Claim 15*

Applicant respectfully traverses the rejection of claim 15. Claim 15 is dependent on claim 1. Thus, the discussion for claim 1 above is incorporated herein to support the patentability of claim 15.

Applicant respectfully requests reconsideration and allowance of claim 15.

*Claim 16*

Claim 16 is amended to better describe the recited subject matter. Insofar as the rejection is applied to claim 16, Applicant respectfully traverses the rejection and submits that the Brochure does not provide the recited subject matter. For example, Applicant is unable to find in the cited portions of the Brochure, among other things, selecting a rate smoothing algorithm if a state of at least one of a cardiac signal and a physiologic parameter corresponds to a predetermined state, as recited in claim 16. As discussed above for claim 1, while the predetermined state as recited in claim 16 relates to a cardiac signal or physiologic parameter, the Office Action asserts examples of “a particular state” related to operational parameters of a pacemaker.

Applicant respectfully requests reconsideration and allowance of claim 16.

*Claims 17-20 and 31*

Applicant respectfully traverses the rejection of claims 17-20 and 31. Claims 17-20 and 31 are dependent on claim 16. Thus, the discussion for claim 16 above is incorporated herein to support the patentability of claims 17-20 and 31.

Applicant respectfully requests reconsideration and allowance of claims 17-20 and 31.

*Claim 32*

Claim 32 is amended to better describe the recited subject matter. Insofar as the rejection is applied to claim 32, Applicant respectfully traverses the rejection and submits that the Brochure does not provide the recited subject matter. For example, Applicant is unable to find in the cited portions of the Brochure, among other things, selecting a rate smoothing algorithm if a state of a cardiac signal corresponds to at least one predetermined heart rate state, as recited in

claim 32. As discussed above for claim 1, while the predetermined state as recited in claim 32 relates to a cardiac signal, the Office Action asserts examples of “a particular state” related to operational parameters of a pacemaker.

Applicant respectfully requests reconsideration and allowance of claim 32.

*§102 Rejection of the Claims Using Boute*

Claims 1, 2, 15-20, 31 and 32 were rejected under 35 USC § 102(b) as being anticipated by Boute et al. (U.S. Patent No. 4,503,857, hereinafter referred to as “Boute”).

*Claim 1*

Claim 1 is amended to better describe the recited subject matter. Insofar as the rejection is applied to claim 1, Applicant respectfully traverses the rejection and submits that Boute does not provide the recited subject matter. For example, Applicant is unable to find in the cited portions of Boute, among other things, a rate smoothing module configured to select a rate smoothing algorithm based on whether a predetermined state is present, as recited in claim 1.

The Office Action states:

Boute describes the use of rate smoothing (columns 9 and 10) that can be used for atrial modes (column 11, line 61), using different upward and downward rates of change (column 9, lines 49-51) and being used when the rate either increased or decreased by a certain percentage (column 9).

Based this assertion and the cited portions of Boute, Applicant believes that the Examiner considers Boute’s “flywheel mode” to be the rate smoothing algorithm recited in claim 1. The cited portions of Boute relate to a determination of whether a pacer is in the flywheel or overdrive mode after it determines “whether the last cycle ended a pace pulse, or a sensed heart beat” (column 8, lines 41-43) and, for a dual chamber pacemaker, “whether rate processing is allowed.” (column 10, lines 26-42). Boute further states:

... the program ... makes the determination of whether it is in the flywheel or overdrive mode. This information is stored in the memory, having been entered by normal programming techniques.

(column 9, lines 1-6). Thus, by teaching a determination of which mode has been entered into the memory “by normal programming techniques,” the cited portions of Boute teach away from selecting a rate smoothing algorithm based on whether a predetermined state is present.

Applicant respectfully requests reconsideration and allowance of claim 1.

*Claim 15*

Applicant respectfully traverses the rejection of claim 15. Claim 15 is dependent on claim 1. Thus, the discussion for claim 1 above is incorporated herein to support the patentability of claim 15.

Applicant respectfully requests reconsideration and allowance of claim 15.

*Claim 16*

Claim 16 is amended to better describe the recited subject matter. Insofar as the rejection is applied to claim 16, Applicant respectfully traverses the rejection and submits that Boute does not provide the recited subject matter. For example, Applicant is unable to find in the cited portions of Boute, among other things, selecting a rate smoothing algorithm if a state of at least one of a cardiac signal and a physiologic parameter corresponds to a predetermined state, as recited in claim 16.

The discussion above for claim 1 is also incorporated herein to support the patentability of claim 16. By teaching a determination of which mode has been entered into the memory "by normal programming techniques," the cited portions of Boute teach away from selecting a rate smoothing algorithm based on whether the state of at least one of a cardiac signal and a physiologic parameter corresponds to a predetermined state.

Applicant respectfully requests reconsideration and allowance of claim 16.

*Claims 17-20 and 31*

Applicant respectfully traverses the rejection of claims 17-20 and 31. Claims 17-20 and 31 are dependent on claim 16. Thus, the discussion for claim 16 above is incorporated herein to support the patentability of claims 17-20 and 31.

Applicant respectfully requests reconsideration and allowance of claims 17-20 and 31.

*Claim 32*

Claim 32 is amended to better describe the recited subject matter. Insofar as the rejection is applied to claim 32, Applicant respectfully traverses the rejection and submits that Boute does not provide the recited subject matter. For example, Applicant is unable to find in the cited

portions of Boute, among other things, selecting a rate smoothing algorithm if a state of a cardiac signal corresponds to at least one predetermined heart rate state, as recited in claim 32.

The discussion above for claim 1 is also incorporated herein to support the patentability of claim 32. By teaching a determination of which mode has been entered into the memory “by normal programming techniques,” the cited portions of Boute teach away from selecting the flywheel mode based on whether the state of a cardiac signal corresponds to a predetermined heart rate state.

Applicant respectfully requests reconsideration and allowance of claim 32.

*§102/103 Rejection of the Claims Using Guidant Product Brochure or Boute*

Claims 2-6 and 29 were rejected under 35 USC § 102(b) as being anticipated by or, in the alternative, under 25 USC. § 103(a) as obvious over the Brochure, or Boute for claims 3-6 and 29.

*Claims 2-6*

Applicant respectfully traverses the rejection of claims 2-6. Claim 2-6 are dependent on claim 1. Thus, the discussion for claim 1 above is incorporated herein to support the patentability of claims 2-6.

Applicant respectfully requests reconsideration and allowance of claims 2-6.

*Claim 29*

Applicant respectfully traverses the rejection of claim 29. Claim 29 is dependent on claim 16. Thus, the discussion for claim 16 above is incorporated herein to support the patentability of claim 29.

Applicant respectfully requests reconsideration and allowance of claim 29.

*§103 Rejection of the Claims Using Guidant Product Brochure or Boute*

Claims 28 and 30 were rejected under 35 USC § 103(a) as being unpatentable over the Brochure or Boute.

*Claims 28 and 30*

Applicant respectfully traverses the rejection of claims 28 and 30. Claims 28 and 30 are dependent on claim 16. Thus, the discussion for claim 16 above is incorporated herein to support the patentability of claims 28 and 30.

Applicant respectfully requests reconsideration and allowance of claims 28 and 30.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 373-6965 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

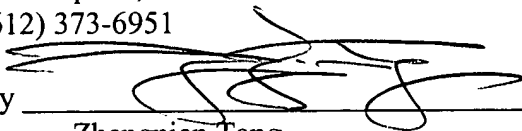
Respectfully submitted,

ERIC G. LOVETT

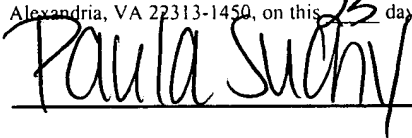
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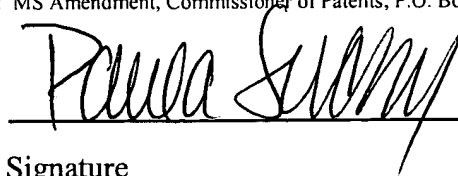
Date 11/22/2004

By   
Zhengnian Tang  
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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 23 day of November, 2004.

  
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